

# Dental Assistant

<b>Levels:</b>	<b>Grade 12</b>
<b>Units of Credit:</b>	<b>2.0</b>
<b>CIP Code:</b>	<b>51.0601</b>
<b>Prerequisite:</b>	<b>None</b>
<b>Skill Test:</b>	<b>720, 721, 722, 723</b>

## COURSE DESCRIPTION

An instructional program that prepares individuals to assist a dentist or dental hygienist performing the functions of a dental practice. Includes instruction in chairside assisting, patient preparation, front office functions, selected dental office laboratory procedures, and introduction to radiology.

## DENTAL SCIENCE I - CORE STANDARDS, OBJECTIVES, AND INDICATORS

### STANDARD 1

**Students will examine the field of dentistry.**

**OBJECTIVE 1:** Identify the important contributions of the following people to the field of dentistry

- a. G. V. Black – Grand Old Man of Dentistry
- b. Wilhelm Conrad Roentgen – discovered potential of x-ray beam
- c. C. Edmund Kells – employed the 1<sup>st</sup> dental assistant
- d. Pierre Fauchard – Father of Modern Dentistry
- e. Horace Wells – use of nitrous oxide for relief of dental pain
- f. Paul Revere – 1<sup>st</sup> forensic dentist
- g. Ida Gray-Rollins – first African American woman to earn a formal DDS degree
- h. Emeline Robert Jones – 1<sup>st</sup> woman to establish a regular dental practice in the U.S.
- i. Malvina Cueria – 1<sup>st</sup> female dental assistant
- j. Irene Newman – 1<sup>st</sup> dental hygienist
- k. Lucy B. Hobbs-Taylor – 1<sup>st</sup> female graduate of a dental school
- l. Juliette A. Southard – founded American Dental Assistant's Association

**OBJECTIVE 2:** Describe the following dental health team members (including educational requirements, professional organizations, responsibilities, and licensure)

- a. Dentist
- b. Dental Hygienist
- c. Dental Assistant
- d. Administrative Assistant
- e. Dental Laboratory Technician

**OBJECTIVE 3:** Describe the following areas of specialization in dentistry

- a. Dental Public Health
- b. Endodontics
- c. Oral & Maxillofacial Radiology

- d. Oral & Maxillofacial Surgery
- e. Oral Pathology
- f. Orthodontics
- g. Pediatric Dentistry
- h. Periodontics
- i. Prosthodontics

**OBJECTIVE 4:** Describe the characteristics of a professional dental assistant.

- a. Professional appearance
- b. Teamwork
- c. Attitude
- d. Dedication
- e. Responsibility
- f. Initiative
- g. Confidentiality
- h. Personal qualities.

**OBJECTIVE 5:** Identify professional work habits.

- a. Courtesy and respect for patients and team members
- b. Attendance of work hours
- c. Professional communication (grammar)
- d. Team work
- e. Problem solving

**OBJECTIVE 6:** Outline methods for helping patients feel comfortable before, during, and after treatment.

**OBJECTIVE 7:** Explain patient confidentiality.

**OBJECTIVE 8:** Describe communication with patients including telephone, special needs patients, and team members

**OBJECTIVE 9:** Demonstrate professional appearance, hygiene, dental health, and behaviors.

## **STANDARD 2**

**Students will identify areas of the dental office and basic dental equipment.**

**OBJECTIVE 1:** Identify and describe the following areas of the dental office.

- a. Dental Operator (treatment area)
- b. Reception Area
- c. Administration/Business Area
- d. Sterilization Area
- e. Dental Laboratory
- f. Dentist's Private Office
- g. Consultation Room
- h. Dental Staff Lounge

**OBJECTIVE 2:** Identify and describe proper use and maintenance of the following clinical equipment.

- a. Operator Stool
- b. Assistant Stool
- c. Dental Chair
- d. Operating Light
- e. Air water syringe
- f. Oral evacuation system
- g. Curing light
- h. Amalgamator
- i. Rheostat (foot control)
- j. X-ray systems

**OBJECTIVE 3:** Outline basic morning & evening routines.

### **STANDARD 3**

**Students will demonstrate an understanding of appropriate ethical and legal behavior in a dental setting.**

**OBJECTIVE 1:** Define the difference between ethics and laws including the importance of professional and personal ethics in the workplace.

**OBJECTIVE 2:** Discuss ethical and legal responsibilities for the dental healthcare worker.

**OBJECTIVE 3:** Identify standards of the Health Insurance Portability and Accountability Act/HIPAA and discuss the need to protect the patient's privacy.

**OBJECTIVE 4:** Explain the purpose of the state dental practice act and how it applies to the role of the dental assistant.

**OBJECTIVE 5:** Discuss the role of the dental assistant in recognizing and reporting domestic violence, neglect and child abuse.

### **STANDARD 4**

**Students will demonstrate personal safety procedures based on OSHA and CDC guidelines.**

**OBJECTIVE 1:** Outline the Centers for Disease Control & Prevention guidelines and identify components of a written exposure control plan.

**OBJECTIVE 2:** Explain the OSHA Bloodborne Pathogen Standard including

- a. Training requirements
- b. Employee medical records
- c. Exposure protocol

**OBJECTIVE 3:** Demonstrate proper use of PPE and correct handwashing technique.

**OBJECTIVE 4:** Outline the OSHA Hazard Communication Standard including

- a. Training program
- b. Chemical inventory
- c. Locate OSHA posters and MSDS sheets on site

## **STANDARD 5**

**Students will demonstrate infection control protocol.**

**OBJECTIVE 1:** Identify methods of disease transmission including chain of infection and modes of transmission in the dental office.

**OBJECTIVE 2:** Obtain Hepatitis B vaccination or provide signed declination form.

**OBJECTIVE 3:** Outline standards for prevention of disease transmission.

- a. Prevent cross contamination
- b. Maintain aseptic conditions

**OBJECTIVE 4:** Waste disposal

**OBJECTIVE 5:** Perform sterilization procedures

**OBJECTIVE 6:** Perform disinfection procedures

## **STANDARD 6: ORAL ANATOMY**

**Students will identify intra-oral anatomy and surrounding structures.**

**OBJECTIVE 1:** Identify teeth by name, location, and permanent, primary or mixed dentition.

**OBJECTIVE 2:** Identify anatomical parts, tissues, and surfaces of a tooth.

**OBJECTIVE 3:** Identify supporting structures (periodontal ligaments, alveolar bones, gingival, and cementum)

**OBJECTIVE 4:** Identify primary and permanent teeth using the Universal Tooth Numbering System.

**OBJECTIVE 5:** Identify major landmarks of the oral cavity and surrounding structures (maxillary sinus, salivary glands and ducts, maxilla, mandible, TMJ, incisive papilla, rugae, uvula, frenulums, soft palate, hard palate, tongue, teeth, oral mucosa, gingival tissue, temporal bone, and trigeminal nerve)

**OBJECTIVE 6:** Describe genetic and developmental factors that can affect dental development (tori, geographic tongue, fissure tongue, supernumerary, enamel dysplasia, cleft palate, cleft lip, tongue-tied, andontia, microdontia, and macrodontia)

## **STANDARD 7**

**Students will identify the infectious process of dental caries, and other diseases of the oral cavity.**

**OBJECTIVE 1:** Outline the dental caries process.

- a. Acids in plaque and saliva attack the tooth.
- b. Calcium and phosphate are dissolved from the enamel (Demineralization).
- c. Fluoride, calcium and phosphate are re-deposited into the tooth (Remineralization).

**OBJECTIVE 2:** Describe the clinical characteristics of gingivitis (red, swollen gingival tissues that bleed easily).

**OBJECTIVE 3:** Recognize the diseases/conditions of the oral cavity including oral cancer, candidiasis (thrush), cellulitis, conditions of the tongue (fissured tongue, geographic tongue, and glossitis), and herpes.

**OBJECTIVE 4:** Identify the effects of methamphetamine use ("Meth Mouth" is the common term for the effects of methamphetamine use and results in rampant decay on the buccal surface and in the interproximal areas of the anterior teeth).

**OBJECTIVE 5:** Describe the oral conditions of a patient with eating disorders.

- a. Bulimia – severe wear on the lingual surface of the teeth caused by stomach acid from repeated vomiting.
- b. Anorexia Nervosa – the strength of the teeth and the health of the gingival tissues are reduced, because of the lack of calcium and other nutrients.

## **STANDARD 8**

**Students will identify components of a comprehensive preventive dentistry program.**

**OBJECTIVE 1:** Explain the parts of a preventive dentistry program.

- a. Nutrition
- b. Patient education
- c. Plaque control
- d. Fluoride therapy
- e. Dental check-ups

**OBJECTIVE 2:** Identify different products used for oral hygiene and their uses.

- a. Toothbrushes
- b. Dental floss/tape
- c. Interdental aids
- d. Toothpastes
- e. Mouth rinses

**OBJECTIVE 3:** Outline techniques for educating patients in oral hygiene.

- a. Tooth brushing methods – Bass
- b. Flossing

- c. Disclosing

**OBJECTIVE 4:** Instruct a patient in preventive education and oral hygiene instruction.

**OBJECTIVE 5:** Explain how diet and nutrition can affect oral conditions.

- a. Dental decay is directly linked to the presence of dietary sugars (sucrose) in the diet. Sucrose is highly cariogenic and can be found in many foods. A dental assistant needs to be able to recognize the pattern of decay and counsel with the patient on their nutritional choices.

**OBJECTIVE 6:** Analyze the six areas of the food pyramid. (Grains, vegetables, fruits, oils, milk, and meat/beans.)

## **STANDARD 9**

**Students will be able to perform the skills and responsibilities of a dental assistant in the front office.**

**OBJECTIVE 1:** Discuss and apply oral communications.

- a. Words
- b. Facial expressions
- c. Appearance
- d. Gestures
- e. Mannerisms
- f. Listening skills
- g. Voice inflection
- h. Attitudes
- i. Actions

**OBJECTIVE 2:** Demonstrate good phone courtesy.

- a. Smile
- b. Don't chew gum or eat
- c. Speak directly into the receiver
- d. Speak clearly and slowly
- e. Answer promptly
- f. Greet patient – identify yourself and the practice
- g. Ask how you can help the caller

**OBJECTIVE 3:** Identify the differences between verbal and nonverbal communications.

- a. Verbal – words spoken
- b. Non-verbal – body language.

**OBJECTIVE 4:** Discuss the importance of understanding cultural diversity in the dental office.

- a. Race
- b. Gender
- c. Cultural heritage
- d. Age
- e. Physical abilities

- f. Spiritual beliefs

**OBJECTIVE 5:** Outline the process of scheduling appointments

- a. Guidelines for scheduling – units of time
- b. Confirmation of appointments
- c. Re-call

**OBJECTIVE 6:** Identify the functions of computerized practice management systems and manual bookkeeping practices.

**OBJECTIVE 7:** Identify the data gathering process and prepare a patient record.

- a. Registration form
- b. Medical-dental health history form
- c. Clinical examination form
- d. Progress note form.

**OBJECTIVE 8:** Describe how to use these filing systems: alphabetic, numeric, cross-reference, and chronologic.

**OBJECTIVE 9:** Define terminology related to insurance.

- a. Assignment of benefits
- b. Carrier
- c. Co-insurance
- d. Deductible
- e. Dependent
- f. Eligibility
- g. Exclusions
- h. Maximum
- i. Provider
- j. Subscriber

## **STANDARD 10**

**Students will be able to perform basic life support skills.**

**OBJECTIVE 1:** Describe the signs and symptoms of a common medical emergency and describe how to respond to them.

- a. Symptom – what a patient tells you regarding how they feel
- b. Sign – what you observe in a patient
- c. Common emergencies include – airway obstruction/choking, syncope/fainting, postural hypotension, angina/chest pain, acute myocardial infarction/heart attack, stroke/CVA, hyperventilation, asthma attack, allergic reaction, seizure, and diabetic conditions – diabetic shock, hyperglycemia, and hypoglycemia

**OBJECTIVE 2:** Demonstrate how to treat syncope.

**OBJECTIVE 3:** Demonstrate how to treat postural hypotension.

**OBJECTIVE 4:** Obtain current CPR certification.

## **DENTAL SCIENCE II - CORE STANDARDS, OBJECTIVES, AND INDICATORS**

### **STANDARD 1**

**Students will be able to perform the skills and responsibilities expected of a dental assistant in a dental examination.**

**OBJECTIVE 1:** Describe the role of the dental assistant in the clinical examination.

**OBJECTIVE 2:** Receive patients and prepare room for treatment.

**OBJECTIVE 3:** Take, record, and monitor vital signs (using automated systems)

- a. Blood pressure
- b. Pulse

**OBJECTIVE 4:** Chart existing restorations or conditions.

**OBJECTIVE 5:** Explain the importance of a treatment plan.

- a. Treatment plan is a compilation of clinical findings and oral diagnosis by a dentist, in an outlined format for presentation purposes.
- b. The treatment plan must be presented and accepted by the patient before treatment is rendered.

**OBJECTIVE 6:** Maintain field of operation during dental procedures.

**OBJECTIVE 7:** Explain the difference between an oral prophylaxis and coronal polishing.

- a. Oral prophylaxis – the complete removal of calculus, debris, stain, and plaque from the teeth.
- b. Coronal polish/rubber cup polish – a technique used to remove plaque and stains from the crown of the tooth.

**OBJECTIVE 8:** Demonstrate safety precautions to be followed during coronal polish.

- a. Operator and patient positioning
- b. Polishing/bristle cups
- c. Polishing paste
- d. Proper headpiece grasp/fulcrum
- e. Proper headpiece operation
- f. Polishing strokes

**OBJECTIVE 9:** Perform coronal polish.

**OBJECTIVE 10:** Outline the methods of fluoride therapy

- a. Systemic
- b. Topical

**OBJECTIVE 11:** Apply topical fluoride.

**OBJECTIVE 12:** Maintain records in accordance with legal guidelines.

- a. Black ink.



- b. Date.
- c. Tooth number.
- d. Surfaces of tooth.
- e. Procedure performed.
- f. All important information pertaining to treatment rendered.
- g. Signature of individual who made the entry.

**OBJECTIVE 13:** Record the examination in patient record.

**OBJECTIVE 14:** Demonstrate how to correct an error on the patient chart.

## **STANDARD 2**

**Students will demonstrate patient and operator protection, infection control procedures, expose and process, evaluate, mount and label dental x-rays.**

**OBJECTIVE 1:** Explain to a patient the benefits of dental x-rays.

- a. Detect decay between the teeth in its early stages.
- b. Detect bone loss around the teeth.
- c. Detect periapical abscess.
- d. Detect impacted teeth.
- e. Evaluate patient growth and development.
- f. Document existing oral conditions.
- g. Obtain information during dental procedures.

**OBJECTIVE 2:** Identify types of intraoral and extraoral radiographs and the purpose of each.

- a. Intraoral
  - 1. Bitewing x-rays: shows crowns of both upper and lower teeth; for decay detection.
  - 2. Periapical x-rays: used to show crown, root tip, and surrounding area to diagnose abscesses.
  - 3. Occlusal x-rays: used to examine large areas of the jaws to identify impactions or pathological conditions.
- b. Extraoral
  - 1. Panoramic x-rays: shows entire upper and lower jaw; used to locate impacted teeth, tooth eruption patterns, and lesions in the jaw.
  - 2. Cephalometric x-rays: shows the bones and soft tissues of the facial profile; used in orthodontics.

**OBJECTIVE 3:** Identify the components of the dental x-ray machine and their use.

- a. Tubehead.
- b. Extension arm.
- c. Control panel.

**OBJECTIVE 4:** Demonstrate methods of radiation protection for the patient during x-ray exposure.

- a. Take only those radiographs prescribed by the dentist.
- b. Use equipment that is properly maintained.

- c. Use the fastest speed of dental film to limit exposure time.
- d. Use proper film exposure techniques including use of film-holding devices.
- e. Use lead aprons and thyroid collars for all patients.

**OBJECTIVE 5:** Demonstrate methods of radiation protection for the operator during x-ray exposure.

- a. Never stand directly in front of the x-ray tube head.
- b. Always stand at least 6 feet from the x-ray unit, or behind a wall, during exposure.
- c. Use radiation monitoring to protect the operator.

**OBJECTIVE 6:** Demonstrate infection control during x-ray procedures.

**OBJECTIVE 7:** Assemble the XCP instrument.

**OBJECTIVE 8:** Demonstrate techniques for intraoral x-rays.

- a. Paralleling technique.
- b. Bisecting angle technique.
- c. Bite-wing technique.
- d. Occlusal technique.

**OBJECTIVE 9:** Outline the advantages and disadvantages of digital radiography.

- a. Advantages
  - 1. Gray scale resolution is excellent and the dentist may enhance contrast on the computer.
  - 2. 50% - 80% less radiation is used in exposure.
  - 3. Immediate images.
  - 4. Lower cost for equipment and film.
  - 5. No environmental concerns related to disposal of chemicals.
  - 6. Great for patient education because patients can see the conditions within in the teeth.
- b. Disadvantages
  - 1. Initial setup costs are higher because digital systems require computers and accessory items for each operatory.
  - 2. Intraoral sensors are larger and bulkier than traditional x-ray film.
  - 3. Sensors cannot be heat sterilized, so they must be protected with disposable barriers.
  - 4. Some professionals feel the quality of images is not as good as traditional films.

**OBJECTIVE 10:** Demonstrate extraoral x-ray techniques.

- a. Panoramic x-ray technique.

**OBJECTIVE 11:** Evaluate x-rays for diagnostic quality.

- a. Contrast.
- b. Density.
- c. Image detail.
- d. Image distortion.

**OBJECTIVE 12:** Identify common exposure and technique errors.

- a. Blurred images: movement during the exposure.
- b. Clear film: film was not exposed.
- c. Cone cutting: x-ray beam did not cover the entire film.
- d. Double exposure: film was exposed twice.
- e. Elongation: vertical angulation too flat.
- f. Foreshortening: vertical angulation too steep.
- g. Herringbone effect: film was placed with the white side away from the PID.
- h. Missing apical structures: film did not cover entire tooth.
- i. Occlusal plane tilted: film not in proper position.
- j. Overexposure: excessive exposure.
- k. Overlapping: central ray not directed through interproximal space.
- l. Underexposure: Insufficient exposure.

**OBJECTIVE 13:** Identify common processing errors.

- a. Dark films: overdevelopment, strong solution, solution too warm, light leaks.
- b. Fogged film: improper safelight, expired film, stray radiation.
- c. Light films: underdevelopment, weak solution, contaminated solution.
- d. Overlap: films touching or overlapping during processing.
- e. Roller marks: dirty rollers on automatic processor.

**OBJECTIVE 14:** Outline care of the automatic processor.

- a. Must be cleaned according to manufacturer's directions.
- b. Chemicals should be replenished according to manufacturer's directions and disposed of according to state standards.

**OBJECTIVE 15:** Identify radiographic landmarks for mounting intraoral films.

- a. Enamel.
- b. Dentin.
- c. Pulp.
- d. Maxillary sinus.
- e. Maxillary tuberosity.
- f. Retromolar area.
- g. Ramus.

**OBJECTIVE 16:** Mount and label radiographs.

- a. All mounts are labeled with the patient's name, date of exposure, and the dentist's name and address.

**STANDARD 3**

**Students will examine pharmacology and pain control in the dental office setting.**

**OBJECTIVE 1:** List each part of a prescription.

- a. Superscription.
- b. Inscription.
- c. Subscription.
- d. Signature.

**OBJECTIVE 2:** Identify common prescription abbreviations.

**OBJECTIVE 3:** Record prescription in the patient record.

**OBJECTIVE 4:** List commonly prescribed drugs in dentistry.

- a. Analgesics
  - 1. Acetaminophen
  - 2. Ibuprofen
  - 3. Naproxen
  - 4. Aspirin.
  - 5. Codeine
- b. Antibiotics.
  - 1. Amoxicillin
  - 2. Cephalexin/Keflex
  - 3. Erythromycin
  - 4. Clarithromycin
  - 5. Azithromycin
  - 6. Chlorhexidiene
- c. Antifungal agents
  - 1. Nystatin
- d. Antiviral agents
  - 1. Acyclovir
- e. Antianxiety agents
  - 1. Diazepam
  - 2. Valium

**OBJECTIVE 5:** Prepare for a local anesthetic injection including the proper handling of the anesthetic syringe, anesthetic cartridge, disposable needle, and application of a topical anesthetic.

**OBJECTIVE 6:** Identify local anesthetic agents.

**OBJECTIVE 7:** Identify the complications and precautions for dental anesthesia.

- a. Injection into a blood vessel – aspiration.
- b. Toxic reaction – check patient's dental/medical history for previous reactions.
- c. Temporary numbness – caution patient not to bite tongue, lips, and cheeks.
- d. Paresthesia (temporary or permanent) – use only sterile solution and proper injection technique.

**OBJECTIVE 8:** Explain the use and purpose of nitrous oxide in dental treatment.

- a. Inhalation sedation.

**OBJECTIVE 9:** Describe the procedure for monitoring nitrous oxide/oxygen analgesia.

**OBJECTIVE 10:** Document the use of anesthesia and pain control in the patient record.

## **STANDARD 4**

**Students will identify components of operative procedures and assist in patient treatment.**

**OBJECTIVE 1:** Identify reasons for restorative and esthetic dental treatment.

- a. Restorative
  - 1. Treat caries, fractures, abrasions, erosion, defects in tooth structure.
  - 2. Replace failed restorations.
  - 3. Restore a tooth to normal function and appearance.
- b. Esthetic
  - a. Improve appearance of teeth due to discoloration, developmental abnormalities, abnormal spacing, or trauma.

**OBJECTIVE 2:** Outline responsibilities of the dental assistant in operative dental procedures.

- a. Prepare treatment room.
- b. Know proper sequence of procedures in order to anticipate the dentist's needs during patient treatment.
- c. Mix materials.
- d. Prepare retainers.
- e. Assist in the following:
  - 1. Administration of local anesthesia.
  - 2. Moisture control.
  - 3. Maintaining patient comfort.
- f. Apply appropriate exposure control protocols
- g. Perform only those expanded functions allowed by the State Dental Practice Act.

**OBJECTIVE 3:** Identify handpieces and burs, their common uses in operative dentistry, and maintenance.

- a. Low-speed.
- b. High-speed.
- c. Fiber optic light.
- d. Air abrasion.
- e. Laser handpiece.
- f. Burs: round, inverted cone, straight fissure plain and cross cut, pear, end cutting.
- g. Diamonds.
- h. Trimming and finishing burs.
- i. Polishing disks and wheels.
- j. Stones.
- k. Rubber points.

**OBJECTIVE 4:** Mix restorative dental materials.

- a. Amalgam.
- b. Composite resins.
- c. Bonding systems.
- d. Cements.
- e. Zinc oxide eugenol.
- f. Glass ionomer.

- g. Liners: calcium hydroxide, dental sealer, varnish.
- h. Tooth whitening systems.

**OBJECTIVE 5:** Outline treatment options for vital bleaching.

- a. In-office treatment.
- b. At-home treatment.
- c. Over-the-counter treatment.

**OBJECTIVE 6:** Outline steps for instrument setup and care.

**OBJECTIVE 7:** Set up for a Class II amalgam procedure.

- a. Instruments
  - 1. Basic setup.
  - 2. Hand cutting instruments (spoon excavator).
  - 3. Amalgam carrier.
  - 4. Condensers.
  - 5. Burnishers.
  - 6. Carvers.
  - 7. Articulating paper holder.
- b. Accessories
  - 1. Local anesthetic setup.
  - 2. HVE.
  - 3. Saliva ejector.
  - 4. High and low speed handpieces with assortment of burs.
  - 5. Matrix setup including wedge.
  - 6. Assortment of dental liners.
  - 7. Bases.
  - 8. Sealers.
  - 9. Amalgam capsules.
  - 10. Dental floss.
  - 11. Articulating paper holder.
  - 12. Cotton pellets.
  - 13. Cotton rolls.
  - 14. 2x2 Gauze.

**OBJECTIVE 8:** Set up for a composite procedure.

- a. Instruments
  - 1. Basic setup.
  - 2. Hand cutting instruments (spoon excavator).
  - 3. Composite placement instruments.
  - 4. Articulating paper holder.
- b. Accessories
  - 1. Local anesthetic setup.
  - 2. HVE tip.
  - 3. Saliva ejector.
  - 4. High and low speed handpieces with assortment of burs.
  - 5. Mylar matrix setup.
  - 6. Assortment of dental liners.

7. Bases.
8. Sealers and bonding agents.
9. Composite materials.
10. Curing light.
11. Finishing burs.
12. Dental floss.
13. Articulating paper holder.
14. Cotton rolls.
15. 2x2 Gauze.
16. Abrasive strips.
17. Polishing kit and paste.

**OBJECTIVE 9:** Provide post-operative instructions for restorative procedures.

**OBJECTIVE 10:** Record the amalgam procedure in patient record.

**OBJECTIVE 11:** Record the composite procedure in patient record.

### **DENTAL SCIENCE III - CORE STANDARDS, OBJECTIVES, AND INDICATORS**

#### **STANDARD 1**

**Students will perform skills and assist with prosthodontic procedures including dentures, crown and bridge.**

**OBJECTIVE 1:** Identify types of prosthetic appliances including fixed or removable.

**OBJECTIVE 2:** Explain the various prosthodontic procedures.

- a. Dentures.
- b. Crowns.
- c. Bridges.
- d. Partials.
- e. Veneers.

**OBJECTIVE 3:** Identify instruments used in crown and bridge procedures.

**OBJECTIVE 4:** Set up for a crown and bridge procedure.

**OBJECTIVE 5:** Complete laboratory authorization forms.

**OBJECTIVE 6:** Mix cements both temporary and permanent.

**OBJECTIVE 7:** Demonstrate patient education on the care and maintenance of prosthetic appliances.

**OBJECTIVE 8:** Prepare a set up tray for removable prosthodontics (partials and dentures).

**OBJECTIVE 9:** Record procedure in patient chart.

## **STANDARD 2**

**Students will demonstrate basic knowledge of and assist with common surgical procedures.**

**OBJECTIVE 1:** Identify the instruments in a basic surgical set up and describe their function.

**OBJECTIVE 2:** Set up for a basic extraction.

**OBJECTIVE 3:** Place and remove post-extraction dressings (2x2 gauze).

**OBJECTIVE 4:** Describe how to respond to post-surgical bleeding.

**OBJECTIVE 5:** Demonstrate the ability to explain post-op instructions to a patient.

**OBJECTIVE 6:** Explain a “dry socket” and know its causes.

**OBJECTIVE 7:** Identify the instruments used in suture removal and describe the functions of each.

**OBJECTIVE 8:** Set up for a suture removal.

**OBJECTIVE 9:** Remove sutures.

**OBJECTIVE 10:** Record basic extraction procedure in patient record.

## **STANDARD 3**

**Students will demonstrate basic knowledge of and assist with procedures related to endodontics.**

**OBJECTIVE 1:** Identify the instruments and accessories used in endodontic treatment and describe their functions.

**OBJECTIVE 2:** Set up for basic endodontic procedures.

**OBJECTIVE 3:** List the general steps in endodontic diagnosis.

**OBJECTIVE 4:** List and describe the methods of pulp testing.

**OBJECTIVE 5:** Explain root canal procedure to patient.

**OBJECTIVE 6:** Place and remove dental dam.

**OBJECTIVE 7:** Demonstrate the ability to provide post-op instructions to patient.

**OBJECTIVE 8:** Record basic endodontic treatment in patient record.



## **STANDARD 4**

**Students will demonstrate basic knowledge of and perform skills related to orthodontics.**

**OBJECTIVE 1:** Demonstrate knowledge of the Palmer numbering system.

**OBJECTIVE 2:** Identify the three types of occlusion.

- a. Neutro.
- b. Overbite.
- c. Underbite.

**OBJECTIVE 3:** List the benefits of orthodontic treatment.

**OBJECTIVE 4:** List the steps in obtaining records for orthodontic treatment and planning.

**OBJECTIVE 5:** Provide patient information on caring for orthodontic appliances.

**OBJECTIVE 6:** Provide proper oral hygiene and dietary instructions as it relates to orthodontic appliances.

## **STANDARD 5**

**Students will show basic knowledge of, demonstrate skills, and assist with procedures on pediatric patients.**

**OBJECTIVE 1:** List and explain common procedures in pediatric dentistry.

**OBJECTIVE 2:** Apply and demonstrate effective communication with children.

**OBJECTIVE 3:** Identify and demonstrate patient management techniques for children.

**OBJECTIVE 4:** List the areas of preventative dentistry for children.

**OBJECTIVE 5:** Apply pit and fissure sealants.

**OBJECTIVE 6:** Compare pediatric procedures with those of adults including cleaning, exam, restorative pulpotomy, and stainless steel crown.

**OBJECTIVE 7:** Demonstrate the use of a patient education plan for instructing children and parents about oral hygiene.

**OBJECTIVE 8:** Describe types of injuries commonly seen in pediatric dentistry.

**OBJECTIVE 9:** Demonstrate knowledge of the first aid/emergency treatment for common injuries in pediatric dentistry.

**OBJECTIVE 10:** List types of child abuse.

**OBJECTIVE 11:** Describe injuries consistent with child abuse.

**OBJECTIVE 12:** Discuss the role of the Dental Assistant in reporting child abuse.

**OBJECTIVE 13:** Record pit and fissure sealant procedure in patient record.

#### **STANDARD 6**

**Students will demonstrate knowledge of and perform skills related to periodontics.**

**OBJECTIVE 1:** Set up for a dental prophylaxis.

- a. Ultrasonic scaler
- b. Precaution

**OBJECTIVE 2:** List the causes of periodontal disease.

**OBJECTIVE 3:** Describe the signs and symptoms of periodontal disease.

**OBJECTIVE 4:** List the surgical and non-surgical treatments for periodontal disease.

**OBJECTIVE 5:** Outline the use of mixing materials used in periodontal dressing.

**OBJECTIVE 6:** Demonstrate the ability to give post-op instruction for periodontal procedures.

**OBJECTIVE 7:** Record prophylaxis/periodontal treatment in patient record.

#### **STANDARD 7**

**Students will utilize materials and demonstrate skills related to in-office laboratory procedures.**

**OBJECTIVE 1:** Identify and describe the major pieces of equipment found in the laboratory and the functions of each.

**OBJECTIVE 2:** List the three types of impressions taken in a dental office.

**OBJECTIVE 3:** Demonstrate the ability to explain the impression procedure to a patient.

**OBJECTIVE 4:** Take preliminary impressions.

**OBJECTIVE 5:** Pour, trim, and evaluate the quality of models.

**OBJECTIVE 6:** Fabricate a thermal plastic tray.

## **DENTAL SCIENCE IV - CORE STANDARDS, OBJECTIVES, AND INDICATORS**

### **STANDARD 1**

**Students must complete a minimum of 90 hours of clinical experience in a dental office.**

**OBJECTIVE 1:** Complete the Dental Assisting Clinical Application Form.

- a. Provide documentation of completion of skills competencies, fees and books paid.
- b. Provide hepatitis B vaccination or declination form.

**OBJECTIVE 2:** Complete a clinical work schedule calendar.

**OBJECTIVE 3:** Provide weekly documentation of hours in attendance at clinical site and skills performed.

**OBJECTIVE 4:** Upon completion of clinical hours, have clinical site complete evaluation and return to the instructor.

**OBJECTIVE 5:** Discuss student externship evaluation with instructor.

### **STANDARD 2**

**Students will demonstrate their job seeking skills.**

**OBJECTIVE 1:** Determine personal career goals and employment opportunities.

**OBJECTIVE 2:** Prepare a target resume.

**OBJECTIVE 3:** Using professional letter format, prepare a cover letter.

**OBJECTIVE 4:** Complete a job application.

**OBJECTIVE 5:** Using professional letter format, prepare a follow-up letter.

**OBJECTIVE 6:** Outline methods of negotiating salaries and benefits.

**OBJECTIVE 7:** Outline techniques for successful job interviews.

**OBJECTIVE 8:** Participate in a mock job interview.

**OBJECTIVE 9:** Outline techniques for proper termination procedures.